

**Study  
Report  
2000-03**

**Analysis of the Revised Army Career  
Transitions Survey (ACTS) and  
Comparison With the Fall 1996  
Sample Survey of Military Personnel  
(SSMP): Results and  
Recommendations**

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**United States Army Research Institute  
for the Behavioral and Social Sciences**

**April 2000**



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**A Directorate of the U.S. Total Army Personnel Command**

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for the Department of the Army

University of North Carolina -- Charlotte

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**April 2000**

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## FOREWORD

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The Army Career Transition Survey (ACTS) was an exit survey administered to soldiers leaving the Army. The ACTS was designed to measure soldiers' satisfaction with various aspects of Army life and to determine whether dissatisfaction with these aspects was related to their leaving the Army.

The proponent for the ACTS and for similar items in the Sample Survey of Military Personnel (SSMP) was the Headquarters, Department of Army Deputy Chief of Staff for Personnel (HQDA). Other Army agencies with a need for the results were the Total Army Personnel Command, U.S. Army Recruiting Command, and the U.S. Army Community and Family Support Center.

The purpose of the study described in this report was to analyze the current ACTS data, to compare responses to ACTS items with responses to comparable SSMP items, and to make recommendations about continuing administration of the ACTS.

The Army can use the findings contained in this report to make decisions about the most practical means for collecting data on soldier satisfaction and reasons for leaving the Army.



EDGAR M. JOHNSON  
Director

# ANALYSIS OF THE REVISED ARMY CAREER TRANSITIONS SURVEY (ACTS) AND COMPARISON WITH THE FALL 1996 SAMPLE SURVEY OF MILITARY PERSONNEL (SSMP): RESULTS AND RECOMMENDATIONS

## EXECUTIVE SUMMARY

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### Research Requirement:

From 1990-1993, the U.S. Army Research Institute (ARI) administered a pilot exit survey to separating soldiers known as the Army Career Transitions Survey (ACTS). The ACTS is an exit survey of soldiers who are leaving the Active Component Army. The survey was designed to: a) measure soldiers' satisfaction with various aspects of Army life and b) determine whether their dissatisfaction with an aspect of Army life was an important reason for their leaving the Army. Tracking trends in the survey results is thought to provide the Army with indications of key issues related to retention of soldiers. The proponent for the ACTS was the Headquarters, Department of Army (HQDA) Deputy Chief of Staff for Personnel. Other Army agencies with a need for the results were the Total Army Personnel Command, U.S. Army Recruiting Command, and the U.S. Army Community and Family Support Center (CFSC). This pilot version of the ACTS was never accorded full status as the Army's exit survey instrument and was suspended pending further inquiry on the instrument.

In 1995, the Human Resources Research Organization (HumRRO) was awarded a contract to develop standardized administration procedures and to review and revise the items in the ACTS. The results of that contract determined that several problems did exist. HumRRO identified these problems, offered recommendations for solving the problems, and updated the ACTS.

The objectives of the present contract were to (a) review the results of the revised version, (b) compare ACTS responses to those of the Sample Survey of Military Personnel (SSMP), and (c) provide recommendations regarding the future of the ACTS. Because many of the questions contained in the ACTS were also in the semi-annual SSMP, the results of the two surveys might be similar. If this is the case, then administration of the ACTS may not be necessary. The principal goal of this contract was to determine this necessity.

### Procedure:

To accomplish the objectives of this contract, the approach involved an analysis of the current ACTS data followed by a comparative analysis of the ACTS and SSMP responses for identical questions. Recommendations would be based on these two analyses.

### Findings:

For the first objective, ACTS items were analyzed in accordance with the requests of ARI and followed ARI instructions regarding appropriate statistical methodology and variables of

interest. Analyses revealed that among items receiving the highest percentage of satisfaction ratings were: Overall Assistance Provided by the Army Career and Alumni Program (ACAP) (93%), Army Community Service (ACS) Programs (92.4%), Explanation of Transition Benefits and Entitlements (87.1%), and Army Youth Services Programs (80.4%). The items receiving the lowest percentage of satisfaction ratings were: Amount of Time for Family and Friends (46.9%), Amount of Personnel to Do Work (45.7%), Respect Army Shows Soldiers (42.3%), Respect Army Shows Single Soldiers (41.7%), Army Support and Concern for Family (41%), and Amount of Time Separated from Family (35%).

Differences in the satisfaction level reported within demographic categories revealed that the greatest number of differences occurred for rank groups (officers/enlisted), race (black/white), and marital status (married/single). Generally, officers were more satisfied than enlisted personnel across categories, with Sergeants-Sergeant Majors/Command Sergeant Majors reporting more satisfaction than the lower ranks. This pattern was reversed for family medical and dental care availability, PCS compensation moves, retirement benefits and amount of time separated from family, with higher ranks reporting less satisfaction than lower ranks. Differences between blacks and whites tended to show that blacks were more satisfied than whites, although this pattern was reversed for job security, overseas duty, overall preparation for getting a civilian job, fairness of performance evaluations, and special pay. Married personnel were more satisfied than single personnel across categories, although having children did not greatly affect the satisfaction of single or married personnel on most issues.

The ACTS responses revealed a clear pattern in "reason for leaving" ratings. Among the highest percentage items that ACTS respondents perceived as major reasons for leaving were: Amount of Time Separated from Family (30.2%), Respect Army Shows Soldiers (29.4%), Promotion/Advancement Opportunity (25.3%), Quality of Senior NCO Leadership (24.4%), Overall Quality of Army Life (23.6%), Amount of Time for Family and Friends (22.4%), Respect from Superiors (22.3%), Respect Army Shows Single Soldiers (22.3%), Army Support and Concern for Family (22.2%), Recognition for Accomplishments (21.8%), Supervisors Competence (21.7%), Quality of Officer Leadership (21.2%), and Control over Job Assignments (20.1%).

Among the lowest percentage items that ACTS respondents perceived as major reasons for leaving were: Army Community Service Programs (2.8%), Army Youth Service Programs (2.9%), Overall Assistance Provided by the Army Career and Alumni Program (3.2%), Explanation of Transition Benefits and Entitlements (4.1%), Morale, Welfare, and Recreation (MWR) Programs (4.1%), and DoD Dependent Schools (DODDS) (4.4%).

The demographic differences in "reason for leaving" percentages were comparatively few. In general, these differences showed that females and blacks were more likely than males and whites to believe that a particular aspect of Army life was a more significant reason for leaving. Similarly, enlisted personnel were more likely to believe that particular aspects of Army life were significant reasons for leaving than were officers, although these differences were more common for Privates-Specialist/Corporals than for Sergeants-Sergeants Majors/Command Sergeant Major.

Marital status was frequently an important factor in determining whether an aspect of Army life was a significant reason for leaving the Army. Generally, larger percentages of married than single personnel believed that particular aspects of Army life were reasons to leave the Army. Involuntary separations and those who were not seeking a similar job outside the Army were also more likely to find a particular aspect of Army life to be a major reason for leaving the Army than voluntary separations and those who were seeking a similar job. Having children and one's educational level were unrelated to "reason for leaving" ratings.

One pattern found in ACTS responses was an inverse relationship between "satisfaction" and "reasons for leaving"—that is, items with the highest levels of satisfaction were items with the lowest percentage of ratings as major reasons for leaving, while all but one of the items that had the lowest satisfaction ratings were items with the highest percentage of personnel who perceived them as major reasons for leaving. Army retention may be adversely affected by this pattern.

For the second objective (the primary part of the study), a log-linear analysis was performed to determine whether the responses to the SSMP and ACTS surveys were identical overall, as well as to determine whether there were any particular differences within demographic category responses. Using ARI's standard for the equivalence items on the two surveys, it was found that there was no overall statistical difference between ACTS and SSMP responses. Essentially, on the items that the two surveys share, there were no differences in the responses provided. As a result, the ACTS provides information redundant to that provided by the SSMP.

The third objective in the contract required that two types of recommendations be made as a result of the data analyses done to meet the objectives stated above. An overall recommendation was to be made concerning the continuation of the ACTS. In addition, a second group of recommendations was to be made regarding the ACTS should the Army choose to continue its administration.<sup>1</sup>

#### Utilization of Findings:

We recommend that the Army discontinue the ACTS because the results from the matching ACTS and SSMP items do not differ statistically. Thus there is no basis for continuing the administration of the ACTS.

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<sup>1</sup> The second group of recommendations, contained in Appendix B, was made in accordance with the contractual stipulations and in no way should be construed as a recommendation to continue the ACTS.



**Analysis of the Revised Army Career Transitions Survey (ACTS) and Comparison  
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# **Analysis of the Revised Army Career Transitions Survey (ACTS) and Comparison with the Fall 1996 Sample Survey of Military Personnel (SSMP): Results and Recommendations**

## **INTRODUCTION**

### **Background**

The Army Career Transitions Survey (ACTS) was an exit survey given soldiers leaving the Active Component Army. It was designed to measure soldiers' satisfaction with various aspects of Army life and to determine whether their dissatisfaction with an aspect of Army life was an important reason for leaving the Army. As with other exit survey data, tracking trends in the results was intended to provide the Army with indications of key issues related to soldier retention. From 1990 through 1993, the U.S. Army Research Institute (ARI) administered an experimental exit survey to separating soldiers. This instrument, the ACTS, was designed for use among separating Active Component Army personnel to determine satisfaction levels, perceptions of Army leadership, advice for potential recruits, and the reasons for leaving the Army. This pilot version of the ACTS, which was never accorded full status as the Army's exit survey instrument, was suspended pending further examination of the instrument. The purpose of the resulting inquiry was to develop standardized administration procedures as well as to review and revise the items on the survey. The findings of this analysis revealed that several problems did exist. These problems were identified, recommendations were made for solving the problems, and the ACTS was updated..

The proponent for the ACTS and for the similar items in the Sample Survey of Military Personnel (SSMP) was the Headquarters, Department of Army Deputy Chief of Staff for Personnel (HQDA). Other Army agencies with a need for the results were the Total Army Personnel Command, U.S. Army Recruiting Command, and the U.S. Army Community and Family Support Center.

ACTS items. The pilot version of the ACTS consisted of 104 items, each with multiple response options. These items can be broadly grouped into four areas: a) background information and demographics; b) satisfaction with various aspects of the Army environment; c) satisfaction with Army leadership (Army Leadership Supplement); and d) questions related to occupational training and duties. The instrument typically required 15 to 25 minutes to complete. Giacalone's (1993) evaluation of the ACTS raised a number of methodological and administrative issues, including the lack of demonstrable utility and inconsistent survey administration and data tracking procedures. Additionally, problems with the data (low survey response rates and different response patterns for unidentified and identified respondents and for involuntary and voluntary separations) raised additional concerns. Thus, Giacalone offered four primary recommendations: a) determine whether the collected data will address the needs of a range of specific, potential users; b) update and revise the satisfaction measures; c) standardize

the administration procedures; and d) measure the impact of respondent identification on the resulting data.

Giacalone's evaluation led to an effort to: a) identify administration problems and develop standardized administration procedures, and b) review and revise the items on the ACTS. The results of the findings are summarized below.

Administration problems: Identification and recommendations. Interviews with transition center personnel determined how the ACTS was implemented at each location, what problems were occurring, and what improvements should be considered. The data were analyzed, and five common problem areas were identified.

***Problem 1:*** *Many sites were unaware of their own low return rates and administration problems.*

***Problem 2:*** *Because the ACTS was voluntary, it was more likely to be disregarded by soldiers and by those responsible for its administration.*

***Problem 3:*** *Administrative support systems to help direct and monitor ACTS transition site activities were lacking.*

***Problem 4:*** *An enormous disparity existed between the number of personnel separating across the various transition points.*

***Problem 5:*** *Transition sites had slightly more difficulty obtaining completed ACTS from officers than from enlisted personnel.*

A number of recommendations were made to deal with the problems:

1. Make the ACTS mandatory.
2. Require attendance at the pre-separation briefings and inform officers of the survey's importance.
3. Provide clearer directions to transition sites regarding how and when the ACTS should be administered.
4. Encourage cooperation and compliance by conducting group administration of the ACTS prior to day of separation, such as during the pre-separation and pre-retirement briefings approximately 3 to 6 months before separation.

5. Provide the name and telephone number of an ACTS contact person with every shipment. Supplies should be sent to the sites on a routine basis.
6. Make certain that forms are returned to ARI.
7. Require transition points to account for low response rates.
8. Establish quarterly deadlines for the return of the completed ACTS.
9. Provide transition point personnel with quarterly feedback regarding their response rates and related problems.
10. Provide more administration information for transitioning personnel.
11. Provide support for overburdened transition points to handle large groups of separating personnel, taking monthly fluctuations into account.

Review and revision of ACTS items. Giacalone (1993) noted several deficiencies in the ACTS survey items including: a) the lack of evidence to suggest that important Army issues had been addressed by the survey; b) unclear items subject to multiple interpretations; and c) lack of any known Army data needs that were addressed by the survey items. As a result of Giacalone's findings, interviews with major Army commands were conducted to identify the needs of the sponsors and to determine how well the ACTS had met these needs.

In accordance with directives from ARI and from developed leads, the Army Career and Alumni Program, Army Housing Office, Army Community and Family Support Center, U.S. Army Recruiting Command, and Department of the Army, Personnel (DAPE) were interviewed and/or surveyed and ultimately initiated the revision of ACTS items and/or the analyses.

Three significant changes were made to the satisfaction items. First, 13 items that failed to load on any factor during a previous factor analysis (see Giacalone, Elig, Ginexi, & Bright, 1995), and that were not of interest to any command, were deleted. Second, an "importance" rating was added to the satisfaction rating scale. This new rating procedure was designed to indicate how critical satisfaction items (and different aspects of the Army) are viewed by the soldiers and was expected to increase data quality. It was recommended that an index be devised to weight the item "importance" of each satisfaction rating. Finally, the last change involved an item in the original ACTS which asked the respondent to indicate the most important reason why s/he left the Army (item C). This item was excluded in the revised survey due to lack of interest.

Pilot administration of the revised ACTS. Transition site personnel were instructed to administer the revised version to soldiers on-site; 480 surveys were returned. Analysis revealed

eight distinct factors: leadership/supervisory, benefits/support services, training, family issues, personal benefits, family benefits, PERSTEMPO, and overall quality of life.

### Objectives of the Current Investigation

Based on the assumption that the results would be provided to senior Army leadership for use in developing plans, assessing policies, and evaluating program operations and outcomes, the current investigation sought to analyze the ACTS and similar SSMP question data in order to achieve three objectives.

**Objective 1: Determine results of the ACTS to date, indicating why soldiers are leaving the Army (including differences between those with different personal and military demographics) and their level of satisfaction/dissatisfaction with various aspects of Army life.** The analyses sought to answer the following questions:

1. What indices can be developed to create more stable measures of soldiers' concerns about Army life and reasons for leaving the Army?
2. What is (are) the primary [most frequently given] reason(s) for leaving the Army?
3. How strongly are levels of satisfaction/dissatisfaction related to the reasons indicated for leaving the Army?

Where sufficient numbers of respondents were available in each analysis cell, comparison among subgroups of soldiers were to be made in the following categories: Officers vs. enlisted (Q3), Pay grade (Q3-4), Rank subgroups (Q3-4), Branch or Military Occupational Specialty (MOS) (Q17), Plan to look for job similar to Branch or MOS (Q12), Marital status (Q6), Race, ethnic origin (Q9-10), Gender (Q7), Transition status (Q11), Education level (Q16), and Dependent family members (Q6, Q8).

**Objective 2: Compare the "satisfaction/dissatisfaction with various aspects of Army life" in ACTS results with results for similar items from the Fall 1996 SSMP.** The purpose of comparing ACTS and SSMP results was to determine whether existing survey data (collected semi-annually by the SSMP) provided Army leaders with the same information as collected by ACTS. This objective was considered the primary objective of the overall study.

If the same information is available from both ACTS and SSMP, there would be no need for the ACTS. Since many of the items are not the same on the two questionnaires (although a substantial number of items are redundant), not all of the results of the two surveys are reported here.

**Objective 3: Make recommendations about the continuation of ACTS. The results of the ACTS analyses would be provided to senior Army leadership for use in developing plans, assessing policies, and evaluating program operations and outcomes.**

Given these three objectives, we now turn to the results of the investigation and the details of the findings for each of the objectives.

## FINDINGS

### Objective 1: Determine ACTS Results to Date

ACTS satisfaction items: Highest and lowest satisfaction percentages. The ACTS responses revealed a clear pattern of satisfaction. Among the highest percentages of satisfaction were the items: Overall Assistance Provided by the Army Career and Alumni Program (ACAP) (93%), Army Community Service (ACS) Programs (92.4%), Explanation of Transition Benefits and Entitlements (87.1%), and Army Youth Services Programs (80.4%).

The lowest percentages of satisfaction were the items: Amount of Time Separated from Family (35%), Army Support and Concern for Family (41%), Respect Army Shows Single Soldiers (41.7%), Respect Army Shows Soldiers (42.3%), Amount of Personnel to Do Work (45.7%), and Amount of Time for Family and Friends (46.9%).

ACTS satisfaction items: Important demographic differences in satisfaction percentages. Although there were numerous differences in the satisfaction level reported within demographic categories, the greatest number of differences involved rank groups (officers/enlisted), race (black/white), and marital status (married/single).

In general, officers were more satisfied than enlisted personnel across categories; a similar, although a less pronounced, pattern is evident in comparing Privates through Specialists/Corporals to Sergeants through Sergeant Majors/Command Sergeant Majors, with higher ranks reporting more satisfaction. On the issues of family medical and dental care availability, PCS compensation moves, retirement benefits, and "amount of time separated from family," these patterns were reversed, with higher ranks reporting less satisfaction. Differences between blacks and whites tended to show that blacks were generally more satisfied than whites, although this pattern was reversed for job security, overseas duty, "overall preparation for getting a civilian job," fairness of performance evaluations, and special pay. Married personnel were more satisfied than single personnel across categories, although having children did not greatly affect the satisfaction of single or married personnel on most issues.

ACTS satisfaction items: Highest and lowest reason for leaving percentages. The ACTS responses revealed a clear pattern in "reason for leaving" ratings. Among the highest percentage items that ACTS respondents perceived as major reasons for leaving were: Amount of Time Separated from Family (30.2%), Respect the Army Shows for Soldiers (29.4%), Promotion/advancement Opportunities (25.3%), Quality of Senior NCO Leadership (24.4%), Overall Quality of Army Life (23.6%), Amount of Time for Family and Friends (22.4%), Amount of Respect from Superiors (22.3%), Respect Army Shows for Single Soldiers (22.3%), Support and Concern the Army Has for Your Family (22.2%), Superiors' Recognition of My

Accomplishments (21.8%), Level of Competence of Supervisors (21.7%), Quality of Officer Leadership (21.2%), and Amount of Control over My Job Assignments (20.1%).

Among the lowest percentage items that ACTS respondents perceived as major reasons for leaving were: Army Community Service Programs (2.8%), Army Youth Service Programs (2.9%), Overall Assistance Provided by the Army Career and Alumni Program (3.2%), Explanation of Transition Benefits and Entitlements (4.1%), Morale, Welfare, and Recreation (MWR) Programs (4.1%), and DoD Dependent Schools (DODDS) (4.4%).

ACTS satisfaction items: Important demographic differences in reason for leaving percentages. Unlike the many demographic differences in satisfaction ratings, the demographic differences in “Reason for Leaving” percentages were comparatively few. In general, these differences showed that females were more likely than males and blacks more likely than whites to believe that a particular aspect of Army life was a more significant reason for leaving. Similarly, enlisted personnel were more likely than officers to believe that particular aspects of Army life were significant reasons for leaving, although these differences applied more to Privates through Specialists/Corporals than to Sergeants through Sergeant Majors/Command Sergeant Majors.

Marital status was an important factor in determining whether an aspect of Army life was a significant reason for leaving the Army, with larger percentages of married than single personnel rating particular aspects of Army life as reasons to leave the Army. Involuntary separations and those who were not seeking a similar position outside the Army were more likely to find a particular aspect of Army life to be a major reason for leaving the Army than voluntary separations or those who were seeking a similar job. Having dependents and the level of one’s education were factors unrelated to “reason for leaving” ratings.

Relationship between satisfaction and reason for leaving. As would be expected, the ACTS responses revealed an inverse relationship between “satisfaction” and “reasons for leaving.” That is, items with the highest levels of satisfaction, were items with the lowest percentages of ratings as major reasons for leaving. However, all but one of the items that had the lowest satisfaction ratings were on the list of those items with the highest percentage of personnel who perceived them as major reasons for leaving.

The conclusion from this finding is the following: Army retention would likely not be increased by improving aspects of Army life where the highest satisfaction is already evident, but retention might be positively influenced by improving those aspects of Army life that are important to soldiers and where their satisfaction is low.

If we were to use a simple and informal method of determining which issues are most troublesome, we could subtract the percent of respondents who thought that an issue was a major reason for leaving from the percent of respondents who were satisfied. Such an analysis would provide an index of how closely the issue should be watched, with items of lower value being of

most concern. Table 1, which contains aspects of Army life listed in descending order of satisfaction, reveals that items of most concern overlap significantly with those items that were rated as major reasons for leaving the Army.

Assistance From ACAP	89.7	Spouse Career/work Opportunity	48.9
ACS Programs	89.6	Tech/Prof Dev in Job Assignments	46.7
Expl of Transition Bnfts	83.0	Special Pay	46.0
Army Youth Srvs Prgms	77.5	Amount of Regulation/discipline	45.9
MWR Rec Services	75.2	Fairness of Performance Evaluations	45.0
DoDDS	73.0	Co-workers Competence	44.8
Stateside Living Conditions	71.8	Retirement Benefits	44.7
Educational Benefits	69.0	Respect Army Shows Sngle Parents	41.5
Job Security	68.8	Amount of Basic Pay	40.8
Military Dental Care Quality	67.6	Ldrs' Technical/tactical Competence	39.0
Number of PCS Relocation	66.7	Overseas Living Conditions	38.5
Assignment to Ldrshp Jobs	65.1	Respect Army Shows Spouses	38.4
Family Medical Care Availability	61.7	Family Adjustment of Being Army Fam	36.9
Army Child Care Prgms	61.6	Respect from Superiors	35.1
PCS Move Compensation	60.4	Supervisors Competence	33.8
Geographic Location of Job	60.5	Quality of Officer Leadership	33.4
Overseas Duty	59.7	Control over Job Assignments	33.3
Prep For Getting Civ Job	58.9	Amt of Personal Time	32.5
Use of Skills/training on Job	58.5	Recognition for Accomplishments	31.9
Family Dental Care Availability	57.9	Amount of Personnel to Do Work	31.2
Family Medical Care Quality	57.4	Overall Quality Army Life	30.4
Family Medical Care Availability	56.6	Quality of Sr NCO Leadership	29.5
Amt of Enjoyment From Job	56.2	Promtn/Advancement Opportunity	29.2
Govt Housing Availability	54.6	Amt of Time for Family & Friends	24.5
Military Medical Care Quality	53.8	Respect Army Shows Sngle Sldrs	19.4
Job Fulfillment/Challenge	53.3	Army Sup & Concern for Family	18.8
Amt of Follow-on Trng For MOS/AOC	50.6	Respect Army Shows Soldiers	12.9
Respect Army Shows Dual-Military	49.1	Amt of Time Separated from Family	4.9
Govt Housing Quality	49.1		

**Table 1: An Informal Index of Troublesome Items**

Objective 2: A Comparison of ACTS and SSMP Responses

Although the ACTS and SSMP have unofficially and inconsistently co-existed together for five years, the equivalence of their data has never been investigated. A comparison of the



two is important, since there is considerable overlap among the items. As a management tool, some have claimed that exit surveys and interviews can play a major role in reducing an organization's voluntary turnover rate, while others contend that they are of questionable value (Garretson & Teel, 1982). Personnel studies show that employees are likely to be more open in their comments when reporting on a confidential basis (Goodale, 1982), but such confidentiality could theoretically be achieved with the SSMP. What would make the ACTS data unique and valuable is that such data could be more critical due to collection at the end of soldiers' careers. This timing of data collection might lead to more candid responses from separating personnel. However, if the responses to the items on both surveys are similar, the ACTS would offer no unique advantage over the SSMP.

Using ARI's standard to determine similarities between items on the two surveys, 32 items were selected that were similarly stated on both surveys. A log-linear analysis was performed to determine whether the responses to the two surveys were consistent overall and if there were any particular differences within demographic category responses. Appendix A summarizes the results of this analysis.

As the table in Appendix A shows, using a significance value of  $p < .05$ , the results demonstrated that there was no overall statistical main effect difference between ACTS and SSMP scores. Even from the vantage of specific demographic differences, the few differences are not systematic. This leads to the conclusion that the differences seen are probably due to statistical error, found at some level in all surveys. Essentially, the ACTS and SSMP data do not differ statistically in any component; hence they provide statistically identical data.

### Objective 3: Recommendations

As a result of the analyses performed, we recommend that the Army discontinue the ACTS. It is rare when an analysis reveals results that are this unequivocal. Because the matching ACTS and SSMP items do not differ statistically, there is no basis for the continuation of the ACTS.

This recommendation is made both within the specific context of the data, as well as within the more general context of the exit survey literature. Because the ACTS does not provide the Army with the main advantage of exit surveys, which produce more candid responses that would have resulted in differences between the surveys, even exit survey proponents such as this investigator would find it difficult to support its continuation. Further administration of the ACTS is a waste of both money and personnel time.

Because the recommendation is to discontinue the ACTS, further detailed recommendations about its continuation might appear to contradict this advice. Thus these additional recommendations can be found in Appendix B. However, we strongly urge that these recommendations not be enacted and that the primary recommendation, discontinuation of the ACTS, instead be executed.

## CONCLUSIONS

The ACTS is an instrument that provides considerable information for the Army. Given the lack of difference in quality or content with data in the SSMP, however, it is difficult to justify its continued existence. Its termination seems warranted, if only from the standpoint of cost effectiveness. Items that are not in the SSMP but are in the ACTS could be considered for inclusion in the SSMP and/or other surveys if and when the decision to terminate the ACTS is made.

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## APPENDIX A

### Results of Log-Linear Analysis: Common Items by Subgroups

Common SSMP and ACTS Items	Analysis Subgroups					
	SSMP/ACTS w/ Sat	SSMP/ACTS w/ Sat *No Children	SSMP/ACTS w/ Sat *HS Or Less	SSMP/ACTS w/ Sat *Sex	SSMP/ACTS w/ Sat *Marital Status	SSMP/ACTS w/ Sat *Officer
1. USE OF SKILLS/TRAINING ON THE JOB	NS	NS	NS	NS	NS	NS
2. AMOUNT OF PERSONNEL TO DO WORK	NS	NS	NS	NS	NS	NS
3. CO-WORKERS COMPETENCE	NS	NS	NS	NS	NS	NS
4. CONTROL OVER JOB ASSIGNMENTS	NS	NS	NS	NS	NS	NS
5. AMOUNT OF REGULATION/DISCIPLINE	NS	NS	NS	NS	NS	NS
6. GEOGRAPHIC LOCATION OF JOB	NS	NS	NS	NS	NS	NS
7. FAIRNESS OF PERFORMANCE EVALUATIONS	NS	NS	NS	NS	NS	NS
8. PROMOTION/ADVANCEMENT OPPORTUNITY	NS	NS	NS	NS	NS	NS
9. TECH/PROF DEV IN JOB ASSIGNMENTS	NS	NS	NS	NS	NS	NS
10. ASSIGNMENT TO LDRSHIP JOBS	NS	NS	NS	NS	NS	NS
11. RESPECT FROM SUPERIORS	NS	NS	NS	NS	NS	NS
12. SUPERVISORS COMPETENCE	NS	NS	NS	NS	NS	NS
13. AMOUNT OF BASIC PAY	NS	NS	NS	NS	NS	NS
14. SPECIAL PAY	NS	NS	NS	NS	NS	NS
15. RETIREMENT BENEFITS	NS	NS	NS	NS	NS	NS
16. JOB SECURITY	NS	NS	NS	NS	NS	NS
17. OVERSEAS DUTY	NS	NS	NS	NS	NS	NS
18. STATESIDE LIVING CONDITIONS	NS	NS	NS	NS	NS	NS
19. GOVT HOUSING QUALITY	NS	NS	NS	NS	NS	NS
20. GOVT HOUSING AVAILABILITY	NS	NS	NS	NS	2.15	NS
21. NUMBER OF PCS RELOCATION	NS	NS	NS	NS	NS	NS
22. PCS MOVE COMPENSATION	NS	NS	NS	NS	NS	NS
23. MILITARY MEDICAL CARE QUALITY	NS	NS	NS	NS	NS	NS
24. MILITARY DENTAL CARE QUALITY	NS	NS	NS	NS	NS	NS
25. FAMILY MEDICAL CARE QUALITY	NS	NS	NS	NS	NS	NS

Table A-1- Cont'd.

Results of Log-Linear Analysis: Common Items by Subgroups

<u>Common SSMP and ACTS Items</u>	<u>Analysis Subgroups</u>					
	<u>SSMP/ACTS w/ Sat</u>	<u>SSMP/ACTS w/ Sat *No Children</u>	<u>SSMP/ACTS w/ Sat *HS Or Less</u>	<u>SSMP/ACTS w/ Sat *Sex</u>	<u>SSMP/ACTS w/ Sat *Marital Status</u>	<u>SSMP/ACTS w/ Sat *Officer</u>
26. FAMILY MEDICAL CARE AVAILABILITY	NS	NS	NS	2.25	NS	NS
27. FAMILY DENTAL CARE QUALITY	NS	NS	NS	NS	NS	NS
28. FAMILY DENTAL CARE AVAILABILITY	NS	NS	NS	NS	NS	NS
29. SPOUSE CAREER/WORK OPPORTUNITY	NS	NS	NS	NS	NS	NS
30. DEPENDENT SCHOOLS (DODDS)	NS	NS	NS	NS	NS	NS
31. ARMY LIFE OVERALL QUALITY	NS	NS	NS	NS	NS	NS

Table A-1- Cont'd.

Results of Log-Linear Analysis: Common Items by Subgroups

Item	Analysis Subgroups						
	SSMP/ACTS w/ <u>Sat *Black</u>	SSMP/ACTS w/ <u>Sat *White</u>	SSMP/ACTS w/ <u>Sat *Warrant</u>	SSMP/ACTS w/ <u>Sat *2LT-CPT</u>	SSMP/ACTS w/ <u>Sat *MAJ-COL</u>	SSMP/ACTS w/ <u>Sat *PV2-SPC/CPL</u>	SSMP/ACTS w/ <u>Sat *SGT-SSG</u>
1. Use of Skills	NS	NS	NS	NS	NS	NS	NS
2. Amount Pers	NS	NS	NS	NS	NS	NS	NS
3. Co-Workers	NS	NS	NS	NS	NS	NS	NS
4. Control	NS	NS	NS	NS	NS	NS	NS
5. Amount Reg	NS	NS	NS	NS	NS	NS	NS
6. Geographic	NS	NS	NS	NS	NS	NS	NS
7. Fairness	NS	NS	NS	NS	NS	NS	NS
8. Promotion	NS	NS	NS	NS	NS	NS	NS
9. Tec/Prof	NS	NS	NS	NS	NS	NS	NS
10. Assignment	NS	NS	NS	NS	NS	NS	NS
11. Respect	NS	NS	NS	NS	NS	NS	NS
12. Supervisor	NS	NS	NS	NS	NS	NS	NS
13. Amount Pay	NS	NS	NS	NS	NS	NS	NS
14. Special Pay	NS	NS	NS	NS	NS	NS	NS
15. Retirement	NS	NS	NS	NS	NS	NS	NS
16. Job Security	NS	NS	NS	NS	NS	NS	NS
17. Overseas Duty	NS	NS	NS	NS	NS	NS	NS
18. Stateside	NS	NS	NS	NS	NS	NS	NS
19. Housing Quality	NS	NS	NS	NS	NS	NS	NS
20. Housing Avail	NS	NS	NS	NS	NS	NS	NS
21. Number PCS	NS	NS	NS	NS	NS	NS	NS
22. PCS Comp	NS	NS	NS	NS	NS	NS	NS
23. Medical Quality	NS	NS	NS	NS	NS	NS	NS
24. Dental Quality	NS	NS	NS	NS	NS	NS	NS
25. Fam Med Qual	NS	NS	NS	NS	NS	NS	NS

Table A-1- Cont'd.

Results of Log-Linear Analysis: Common Items by Subgroups

<u>Item</u>	<u>Analysis Subgroups</u>						
	<u>SSMP/ACTS w/ Sat *Black</u>	<u>SSMP/ACTS w/ Sat *White</u>	<u>SSMP/ACTS w/ Sat *Warrant</u>	<u>SSMP/ACTS w/ Sat *2LT-CPT</u>	<u>SSMP/ACTS w/ Sat *MAJ-COL</u>	<u>SSMP/ACTS w/ Sat *PV2-SPC/CPL</u>	<u>SSMP/ACTS w/ Sat *SGT-SSG</u>
26. Fam Med Avail	NS	NS	NS	NS	NS	NS	NS
27. Fam Dental Qual	NS	NS	NS	NS	NS	NS	NS
28. Fam Dental Avail	NS	NS	NS	NS	NS	NS	NS
29. Spouse Career	NS	NS	NS	NS	NS	NS	NS
30. Schools	NS	NS	NS	NS	NS	NS	NS
31. Army Life Quality	NS	NS	NS	NS	NS	NS	NS

## APPENDIX B

### ACTS-RELATED RECOMMENDATIONS

Broadly, these recommendations are intended as guidelines for the Army to consider. However, if the Army continues the ACTS despite our recommendation, it should closely follow those procedural recommendations that impact the validity, reliability, and utility of the data. These procedural recommendations represent potential safeguards against future difficulties with ACTS data. Nothing in the recommendations that follow should be construed as support for the continued administration of the ACTS.

Recommendation: Investigate the Varied Meanings of Low Satisfaction and Major Reasons for Leaving the Army. Although ACTS data provides some consistent and significant indications of problematic aspects of Army life, many of the items that are identified are vague and require further investigation. This in itself is not a problem, since the ACTS was not intended to provide detailed, specific data; instead, it offers more global, general data. However, when items are low in satisfaction ratings and/or high in reason for leaving ratings, this ambiguity should be mitigated.

It is strongly recommended that the Army investigate the precise and varied meanings of some of the more problematic aspects of Army life identified. For example, what are the deficient components of "respect" that ACTS respondents see as a major reason for leaving the Army? What "qualities" of Senior NCO leadership are deficient? The meanings of some of these statements are undoubtedly multifaceted.

An investigation of this type can be done using a nominal group technique or focus group, and can follow procedures similar to those used effectively by this investigator in previous military diagnostic work (see, for example, Giacalone & Rosenfeld, 1990; Giacalone & Knouse, 1994). Such an investigation can uncover the varied meanings of some of these aspects of Army life and can help to identify those changes needed to improve Army life.

Recommendation: Indices for the ACTS and Changes in Items. At the present time, it is difficult to recommend any particular indices for the ACTS, given that the instrument is still in its infancy. However, as the survey and its usage matures, we would recommend that indices be considered.

Although at least one index (Giacalone, R. A., Elig, T. W., Ginexi, E. M., & Bright, A. J., 1995) has been used scientifically with the ACTS, we would suggest that future consideration of indices avoid the factor analytic approach to indexing. This approach, which focuses on identifying and aggregating indices based on underlying variables (e.g. supervision, benefits), does not capture the multi-dimensionality of the variables well. Essentially, by indexing variables in this way, data is "lost" and potentially troublesome areas are ignored. Instead, it is



recommended that indices be developed that focus on changes in satisfaction/reason for leaving within each demographic category.

Thus, baselines for each of the "satisfaction/reason for leaving" variables can be established overall, as well as for each demographic variable, and serve as independent indices. These baselines can index both overall deviations in new responses and particular demographic deviations in new responses. Together, each demographic index (race, gender, education level) can be assessed against the overall index to identify particular demographic deviations from the overall responses as well as against itself to determine whether changes within a demographic category are consistent or inconsistent with overall changes.

Relatedly, we do not recommend any additions or deletions for the ACTS at the present time. The items have face validity and are understandable, thus there is no overt reason to delete any items. Additions should be made so that form follows function: Is there a specific data need that can be met by adding an item? Such a rule of thumb might also be applied to indices that are considered in the future: Does the index meet some data need? As it stands, the ACTS is a lengthy survey but one which is predicated on the data needs of various Commands. It is only when these Commands require new data, or fail to use existing ACTS data, that changes might be considered.

Recommendation: Monitor and Access Sponsor Satisfaction With the ACTS. Given the expense cost of the ACTS, extensive monitoring should occur to assess ACTS sponsor satisfaction. This recommendation is based on current expectations regarding service quality in an organizational setting. Service quality expectations in today's business and organizational world (in the public and private sector) require organizations to provide sufficient service quality in a number of different dimensions. These major dimensions involve credibility, access, communication, understanding the sponsor, reliability, responsiveness, competence, and courtesy. It is important that the ACTS, as a new instrument already tainted by problems, address these dimensions in order to be viable. A brief discussion of each dimension follows.

Credibility refers to the trustworthiness and believability of the product or service that is being provided. From this vantage, the question is not whether the ACTS is a credible instrument, but do the sponsors believe in its utility? Can they trust the data? The problems inherent to military exit instruments in general, and the ACTS in particular, make the credibility of the revised version suspect. It is important to address this issue quickly.

Access involves facility or ease of contact with which sponsors can utilize data from the ACTS. How easy is it to get the data? How easy is it to talk to someone when there is a problem? Is it convenient for the sponsor? These are all essential issues. If the ACTS is to perform to its potential, it must be accessible to those who need the data.

Communication focuses on the extent to which ARI is listening to those people who are interested in the ACTS data. Can ARI respond to sponsors in a clear manner? Can they use language that is easy to understand and avoid technical jargon? Even if ACTS data is excellent in quality, improper communication will cause significant handicaps.

Understanding the sponsor concerns whether ARI is making the effort to know the sponsors and what their needs are. Is there a recognition of those needs? Are those needs clearly understood and clearly monitored? What processes have been put into motion that will help ARI to do so?

The discussion of reliability goes beyond a technical, scientific definition. In addition to the methodological concern, the Army must be interested in the ability to perform the promised service **dependably** and **accurately**. Does the data arrive on time? Does it arrive in the needed format? This is an extremely important issue because it impacts a sponsor's ability to use the data that they receive.

Responsiveness refers to ARI's willingness to help the sponsor and provide prompt service when there is a difficulty. For example, can ARI resolve a data need quickly if the sponsor requests it? Is ARI willing to answer questions regarding data other than that which is reported (e.g., specific breakouts that were not available)? To date, the singular format for ACTS reporting limits its responsiveness.

Competence refers to the perception that those who are analyzing and administering the ACTS possess the skills and knowledge required to perform the service provided. Perceptions translate to sponsor action and use of the data. For example, if the sponsor has a phone encounter with a staff member who is fumbling for information, does not seem to know how to access the data, or is unfamiliar with the specific ways that the data is presented to the sponsor, a perception will develop that there are incompetent persons administering the ACTS. Though erroneous, when sponsors begin to see ACTS from this vantage, they are likely to be less supportive, less comfortable with it, and less likely to feel it can be relied upon. Perceived competence, conversely, translates into higher utility and application of data.

Courtesy cannot be underplayed. Polite, respectful, considerate, and friendly staff, even at the lowest levels of contact, are extremely important. If the ACTS is to succeed, people must feel that it is an instrument supported with a friendly staff. One of the problems with ACTS in the past was not necessarily a lack of courtesy, but a sense that there was disinterest in the ACTS, leaving no one who could provide needed data. This is extremely important and must be corrected in the future.

Given the concern with service quality, what should the Army assess regarding the ACTS? It is easy to talk about these dimensions, but unless specific strategies are detailed, it will be very difficult to translate them into practice. The literature (see, for example, Zeithaml,

Parasuraman, & Berry, 1990) indicates that a number of items must be closely monitored and assessed. Among these, some are particularly important:

1. Level of Support for the ACTS. To what extent is there support by sponsors for the ACTS data?
2. The Level of Perceived Credibility of the ACTS. How credible is the ACTS to the sponsor? Do they trust the data? Do they see it as something important in terms of their day-to-day needs and how to respond to those needs?
3. Level of Long-Term Commitment to the ACTS. Is the ACTS being used temporarily, or is there a sense of long-term commitment to monitor changing trends for future decisions?
4. Level of Importance of the ACTS Data to the Units. Commands/units may say that they would like to have the data, but how do they use it? How important is it to them? Is it an essential part of their data needs or used simply because it is there?
5. Level of Usage. This goes beyond level of importance. At what level of magnitude is the ACTS used? The level of usage can involve a number of items used, number of times the data is accessed, or number of issues that the data impacts once it is used. This is very important in determining whether the ACTS is having an impact.
6. Historical Level of Success. It is important that the Army determine whether the ACTS influenced decisions in an effective, accurate way. Success means that the ACTS provided data which the sponsor or its units were able to use/implement. Thus, it is important that the ACTS data be monitored in terms of success level. Has the data helped decision-making? Has the data provided crucial information? Has the data prevented problems or located opportunities? These are very important issues. Once again, if the Army cannot determine whether the ACTS has had an impact, it is of no use to the Army.

Recommendation: Assess Level of Satisfaction with Servicing the ACTS. People with good intentions still may leave their sponsors dissatisfied with the service that they provided. Thus, to monitor the level of sponsor satisfaction servicing doesn't indicate that ACTS servicing is poor. It is a recognition that level of satisfaction must be monitored because satisfaction is often dependent on specific issues that staff outside the command may not recognize. Close monitoring of servicing satisfaction will help to be responsive to sponsor needs and provide them with appropriate data.

In this appendix, we provide two methods of assessing the ACTS: interview and survey. In the initial ACTS-related work by HumRRO, interviews of the various transition sites successfully revealed many problems. As a result, the interview protocol which follows these recommendations attempts to similarly gather data regarding satisfaction problems. The interview protocol format provides a good way of gathering detailed information and is undoubtedly the appropriate way to start the process. Much detailed information can be gathered in this way in order to accurately assess functioning, meeting of sponsor needs, and sponsors' comments/ questions. Although this is costly, it is helpful at the early stages of implementation.

Following the interview protocol is a survey protocol which could be implemented after the first year that the ACTS is fully operational. At that time, many of the problems with the ACTS will have been eliminated and much of the data needed to make the survey functional will have been gathered. This survey protocol would be a less expensive, less time-intensive way to gather data. This would not mean low quality data, but data collected specifically for a database to help monitor changing needs, expectations, and success levels for the ACTS.

This type of assessment is very important in the long term for the ACTS. Literature on exit surveying and interviewing (Giacalone et al., 1995), as well as data collected on the ACTS and similar military instruments used by the Navy, reveal that lack of success has been largely the result of a lack of data monitoring and misunderstanding of sponsors' needs. An assessment process should be implemented immediately along with a decision to make the ACTS fully operational.

Recommendation: Assess and Procure New ACTS Sponsors. The ACTS, in its present format, is an expensive instrument that collects much data. However, it is underutilized. The Army must continue to procure new ACTS sponsors. An interview protocol similar to the one used during the initial creation of the revised version would provide a good method. Procuring new sponsors does not necessarily mean that the instrument will grow in size (although it might). It does mean that ACTS data could be used by other sponsors to help inform their decisions, thereby reducing the per decision cost of its usage.

It is strongly recommended that a list of the commands be made, that ARI systematically call contact people in each of these commands, and engage them in discussions regarding the ACTS and how it might help them. In the long term, this will yield new sponsors and also help to strengthen the support for the instrument.

Recommendation: Monitor Administration Sites. Giacalone (1993) suggested that the administration of the ACTS was inconsistent and problematic. In a follow-up study with HumRRO, these concerns were found to be accurate. The new means of administration suggested by HumRRO could solve some of these problems, but some monitoring of the efficacy of these changes must occur. It is recommended that the Army follow an established interview

protocol and that this protocol be used to continually monitor administration sites. The goal is a consistent system for administering the ACTS across different sites which provides unbiased information from exiting personnel. More importantly, monitoring whether all personnel are provided the opportunity to complete this instrument (or whether it is being administered haphazardly, as was the case in the previous interviews) will help to determine the representativeness of ACTS respondents.

Recommendation: Provide Automatic Reports to Sponsors. Assessment of satisfaction with the ACTS helps determine whether it provides data in the format sponsors need. We would recommend very specific, automated formats of reports to each of the sponsors. All sponsors should not be given the same format data, but should only be provided with the data requested. This will help to eliminate confusion and difficulty in reading reports. Included in these reports to sponsors should be an indication of changes in responses over a 6- to 12-month period on the items of interest, as well as the different breakdowns, such as race and gender, that they specifically request. If sponsors need additional data or complete data analysis outputs, these should be provided to them as well.

Recommendation: Maintain An On-Going Database and Consistent Analyses. In order to use the ACTS data effectively, it is important to use a consistent set of analyses from an established ACTS database. The primary benefit of such a database is to provide longitudinal data that show trends over time. The current system of briefing and reporting quarterly responses is ineffective and problematic because quarterly responses represent variations in the data that are usually insubstantial. The use of a database provides an effective means of monitoring ACTS responses longitudinally. Temporary variations in responses should not seem as an indicant of specific problems, but as another data point to be monitored, perhaps more carefully. The ACTS data will not provide any reliable information if the system of quarterly reports is used. The Army needs to carefully look at items which deviate at any particular time and to maintain a closer monitoring of those items. Certainly, a precipitous spike or dip in an item warrants immediate attention, not necessarily based on that information alone, but on a confluence of data which indicates that the data is accurate and supportive of other information.

Similarly, it is important to perform the same analyses and use the same format to present the data. For example, currently the Army uses frequencies of responses. Once the decision is made to make the ACTS fully operational, it will be essential to decide how the data will be analyzed and presented. If the decision is to use frequency data, then it is important to continue to look at frequency data and not switch to means, factor scores, or other types of data. Although changing the type and presentation of analysis is certainly possible, a database must be maintained so that any analytical technique can be analyzed and presented longitudinally.

Recommendation: Computerize the ACTS. The suggestion to computerize the ACTS has been made a number of times, most recently by HumRRO in 1995. The technological advantage of the branch capability has already been described previously, so it will not be

detailed in this report. However, in light of the rapid development of computer technology, the computerization of the ACTS is even more important and necessary. The new possibility of using a Web site to administer ACTS offers a real advantage that allows for exit surveying without the costs of individual software and disks that would otherwise be needed.

From Computer Assessment to Web Assessment. The use of a Web site provides many significant advantages. First, the data can be used quickly because it is directly entered into a database. Second, the Web site provides easy access for personnel who are exiting by using one or more computer terminals: there is no need to transfer information to floppy disks, record data, or experience delay in the period from response to analysis. Third, because Web graphics create an interesting, interactive format, exiting personnel should be more excited by the process. The enormous success of the Web indicates a high level of interest and should generalize to the ACTS. Fourth, Web sites would increase the effectiveness of the ACTS by facilitating modifications, thereby potentially speeding new changes to the next exiting group of personnel. This is a major advantage over traditional computer administration (using a DOS or Windows format) which restricts changes to diskettes and requires that disks be sent to the remote sites. A Web site allows direct and immediate changes and eliminates the long time lag between change and implementation. Certainly, if quick response is needed, this saves at least two to three days, and eliminates having to deal with remote units to explain and implement changes.

Finally, Web administration does not mitigate the effectiveness of “paper and pencil” or computer ACTS administration; it enhances all previous methods. A pilot Web administration would be relatively simple, since conversion of the current ACTS format to basic HTML can be done with WordPerfect or Word. Such a pilot program would give the Army a way to assess the effectiveness of Web administration, identify glitches, evaluate the time needed to complete the ACTS, and determine the optimal number of computer units needed. The comparative interest level between “paper and pencil” and Web site administration, as well as the quality of the data that results, could also be assessed at that time.

Recommendation: Calculate the ACTS Return on Investment (ROI). A fundamental issue is whether the ACTS is cost effective for the Army. Essentially this is a question of return on investment (ROI). How does one calculate ROI for the ACTS? Specialists in training and development have used a methodology to calculate ROI for training and development that can be extrapolated and modified for use in determining whether the ACTS ROI is adequate (Phillips, 1996). This is a financially based approach to calculating whether it is useful beyond scientific utility.<sup>1</sup> In Stage 1, the Army needs to identify the potential utility of the ACTS data, determined by finding out from various units and commands how they plan to use the data. In Stage 2, the

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<sup>1</sup> Financial benefits are but one aspect of ROI. We can also measure other “returns” on investment: What is the increase in morale? Preparedness? These are different “returns” on the investment which do not focus particularly on financial benefits.

Army determines the general extent to which the data has been utilized in the intended way. Has the planned data utility been realized? Often, with instruments such as the ACTS, the instrument is planned for a particular use, but is later found to be useful in other ways. Because the data could be used in ways that had not originally been planned, in Stage 2A the Army should ascertain whether the data was utilized in other (unplanned) ways (e.g., used data to improve retention). Once these determinations have been made, in Stages 3 and 3A, the Army identifies the specific ways that the ACTS data has been utilized or implemented (e.g., used data to improve retention in sub-unit X). In Stage 4 of both planned utilization and new utilization, the Army can assess measurable results that have been produced. This requires calculating how ACTS data has been used and what implementation results have achieved. For example, the Army might ask what would have happened if the unit/commands had not possessed this data; alternatively, the Army may wish to compare baseline information (prior to using ACTS data) to post-data results (after using ACTS data).

Finally, in Stage 5 and 6, a dollar assessment is made. Stage 5 is particularly important, for what was learned from Stage 4 is converted into dollar equivalents for each of the commands/units that have requested the data. Here, the savings resulting from the multiple uses of the ACTS data are aggregated. How much total money was saved? To what extent did the Army profit directly as a result of the ACTS data? In Stage 6, the separate units/commands calculations from Stage 5 are added together. This total dollar value represents the savings gained by using the ACTS. This total dollar payoff is then divided by the total overall cost of the ACTS. The total ratio should exceed 1 for a good investment; the higher the ratio, the greater the ROI.

Ultimately, an ROI calculation allows the Army to go beyond scientific assessment and functionally assess the degree of long-term "payoff" for the Army. This calculation, of course, must be ongoing because ROI can change over time, making it a less effective human resource investment for the Army. This appendix also contains a chart showing a variety of methods that can help the Army determine how to calculate ROI for the ACTS.

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## INTERVIEW PROTOCOL

1. Please describe how you have used ACTS data in the past year.
2. Please describe how you initially planned to use the data.
3. Does the data serve your needs?
4. Does the data provide you with comprehensive information? If not, what information could the ACTS include to better meet your needs?
5. In the past year, how have you used ACTS data to improve your unit, identify /resolve problems, or identify/utilize opportunities?
6. In the past year, how has ACTS data been ineffective in serving your needs?
7. What specific changes in the past year have been the direct result of ACTS data?
8. Can you give an estimate of how much time and/or money the ACTS data might have saved you? What is the basis of that estimate? Are there any performance records (e.g. accident rates, downtime, efficiency, production schedules, etc.) that might support your estimate?
9. Does the ACTS provide you with the right type and amount of data to meet your needs? If not, why?
10. How might the ACTS be changed to better meet your data needs?
11. Are you aware of any other data sources that would be as effective as the ACTS?
12. Can you identify other units that might be interested in using the ACTS? If so, please identify the unit and a contact person, if possible.
13. Are you confident with the accuracy/credibility of the data the ACTS provides?
14. Are you satisfied with the comprehensiveness of ACTS reports/briefings?
15. Are you satisfied with the timeliness of the ACTS reports/briefings?
16. Are you satisfied with the clarity of the ACTS-related reports/briefings?

17. Are you satisfied with the organization of ACTS reports/briefings?
18. Are you satisfied with the helpfulness of ARI staff in answering ACTS-related questions?
19. Overall, is there anything that you would like to tell us about ACTS data?
20. How important is ACTS data to your unit?
21. Do you see any change in your data needs that could be met by revising, or including new questions on the ACTS?
22. For which of the following reasons are you using the ACTS? (Check all that apply)
  - ☐ diagnosis of problem areas
  - ☐ ongoing monitoring
  - ☐ assessment of changing needs
  - ☐ tool for planning or forecasting
  - ☐ for use in recruitment data
  - ☐ data to help in personnel development

**Figure B-1. Interview Protocol**

## SATISFACTION SURVEY

### PART I

Directions. For each of the statements below, use the following scale:

1. Not at all
2. Very little
3. Uncertain
4. Somewhat
5. Extremely

1. To what extent does ACTS data serve your needs?
2. To what extent does the data provide you with comprehensive information? If not, what information could the ACTS include to better meet your needs?
3. In the past year, to what extent have you used ACTS data to improve your unit, identify/resolve problems, or identify/utilize opportunities?
4. In the past year, to what extent has ACTS data been effective in serving your needs?
5. To what extent does the ACTS provide you with the right type and amount of data to meet your needs?
6. To what extent are you confident with the accuracy/credibility of the data the ACTS provides?
7. To what extent are you satisfied with the comprehensiveness of the ACTS reports/briefings?
8. To what extent are you satisfied with the timeliness of the ACTS reports/briefings?
9. To what extent are you satisfied with the clarity of the ACTS reports/briefings?
10. To what extent are you satisfied with the organization of the ACTS reports/briefings?
11. To what extent are you satisfied with the helpfulness of ARI staff in answering ACTS-related questions?
12. To what extent is the ACTS data important to your unit?

13. For each the following, evaluate the extent to which you are using the ACTS data for this purpose?

- \_\_\_\_\_ diagnosis of problem areas
- \_\_\_\_\_ ongoing monitoring
- \_\_\_\_\_ assessment of changing needs
- \_\_\_\_\_ tool for planning or forecasting
- \_\_\_\_\_ for use in recruitment data
- \_\_\_\_\_ data to help in personnel development

#### PART 2

Directions. Please provide additional information regarding the ACTS. Give as much detailed information possible.

1. Briefly describe how you have used ACTS data in the past year.
2. Briefly describe how you initially planned use ACTS data.
3. What specific changes in the past year have been the direct result of ACTS data?
4. Can you give an estimate of how much time and/or money the ACTS data might have saved you? What is the basis of that estimate? Are there any performance records (e.g. accident rates, downtime, efficiency, production schedules, etc.) that might support your estimate?
5. How might the ACTS be changed so as to better meet your data needs?
6. Are there other data sources that would be as effective as the ACTS?
7. Can you identify other units that might be interested in using the ACTS? If so, please identify the unit and a contact person, if possible.
8. Overall, is there anything that you would like to tell us about ACTS data?
9. Do you see any change in your data needs that could be met by revising (or including new questions) on the ACTS?

**Figure B-2. Satisfaction Survey**

## METHODS TO CALCULATE ROI FOR THE ACTS

METHOD	EXPLANATION	EXAMPLE OF A SPECIFIC ACTS APPLICATION
Converting General Data Usage to Contribution	Conversion to corresponding dollar equivalents those direct improvements resulting from use of ACTS data	Improvements resulting from responses to the ACTS item "Amount of personnel available to do work," can be converted to dollar savings based on improvements from shifting personnel resources to needed areas, shifting training focus to needed work areas, etc.
Calculating Cost of Quality	Conversion to corresponding dollar equivalents for those quality improvements resulting from use of ACTS data	Improvements resulting from responses to the ACTS item "Quality of family medical care," can be converted to dollar savings based on improvements to medical care's impact on absenteeism, illness, tasks completed, downtime, etc.
Converting Personnel's Time	Conversion to corresponding dollar equivalents for the amount of personnel time saved resulting from improvements due to ACTS data	Improvements resulting from responses to the ACTS item "Use of my skills and training on the job," can be converted to dollar savings based on improvements to appropriate skill use, improved morale, and appropriate training for Army needs
Using Historic Costs	Using historical baseline costs, conversion to corresponding dollar equivalents based on improvements from a historical baseline made as a result of ACTS data	Improvements resulting from responses to the ACTS item, "Quality of family dental care," can be converted to dollar savings based on improvements to morale, family satisfaction with Army life, etc.
Using Internal/External Experts	Using costing data from internal/external experts, the conversion of an expert's estimates of improvements made as a result of ACTS data to a corresponding dollar equivalent	Improvements resulting from responses to the ACTS item, "Overall job fulfillment/challenge," can be converted to dollar savings based on improvements to morale, re-enlistments, positive public relations, etc.

Using External Studies	Using costing data from external studies, the calculation of dollar savings based on improvements made as a result of ACTS data	Improvements resulting from responses to the ACTS item, "Amount of educational benefits," can be converted to dollar savings based on improvements to benefit plans, implementation of new programs, and extension of successful education benefits
Using Leadership, Supervisory and Personnel Estimates	The calculation of dollar equivalents using leadership, supervisory, and personnel estimates of improvement made as a result of ACTS data	Improvements resulting from responses to the ACTS item, "Overall quality of Army life," can be converted to dollar savings based on improvements to aspects of Army life which result in higher morale, satisfaction, and improved performance
Using Command Estimates	The calculation of dollar savings using estimates from the Commands regarding known improvement, based on changes made as a result of ACTS data	Improvements resulting from responses to the ACTS item, "Army child care programs," can be converted to dollar savings based on improvements to morale, lower family stress, lower family illness and injuries, and higher family satisfaction with Army life

**Table B-1. Methods to Calculate ROI for the ACTS**